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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/659,952	09/11/2003	Kenneth L. Addy	H0004587 (16128)	5855

23389 7590 05/17/2005

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EXAMINER

VU, THAI

ART UNIT	PAPER NUMBER
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2687

DATE MAILED: 05/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/659,952

Applicant(s)

ADDY ET AL.

Examiner

Thai N. Vu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. The term "greater" in claim 4, 8, 14 and 18 is a relative term which renders the claim indefinite. The term "greater" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. Term "greater" does not clearly specify whether tolerance it is greater in quality (lower than 20 ppm) or measurement (higher than 20 ppm). For examination purposes, the examiner interprets this as being greater in measurement.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 2, 8-9, 11, 12 ,and 18-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Haugli et al. (U.S. Patent #: 5,991,279; hereinafter "Haugli").

Regarding claim 1, Haugli teaches a synchronizing method between a Radio Frequency (RF) transmitter and a battery powered RF receiver wherein:

the transmitter (FIG. 3, transmitter blocks connected to antenna 80), transmits first periodic sync signals which are received and used by the receiver to maintain proper synchronization of the receiver with the transmitter during second periodic wake up windows for possible transmissions of data (column 2, lines 15-18; column 22, lines 60-63; and column 16, lines 56-60);

the transmitter transmits data during at least some of the second periodic wake up windows for the transmission of data (column 16, lines 45-47, and abstract);

the receiver wakes periodically to receive the first periodic sync signals which are used by the receiver to maintain the receiver properly synchronized with the transmitter during the second periodic wake up windows for possible transmissions of data from the transmitter (column 16, lines 45-61);

the receiver wakes periodically for a short duration at the start of each second periodic wake up window to receive a possible transmission of data (column 16, lines 45-47), and if no transmission is received goes back to sleep, and if a transmission is received stays awake to receive the full transmission of data (column 17, lines 38-47 – inherently if no transmission is addressed to the terminal, it goes back to sleep), such that the average current consumed by the battery powered receiver to wake periodically to receive the first periodic sync signals to maintain synchronization and to wake periodically to listen for the possible second periodic transmissions of data is less than the average current required to maintain the receiver awake continuously (column 1,

line 56-column 2, line 12 – inherently the average current consumed by the battery powered receiver to wake periodically to receive the first periodic sync signals to maintain synchronization and to wake periodically to listen for the possible second periodic transmissions of data is less than the average current required to maintain the receiver awake continuously).

Regarding claim 11, Haugli teaches a synchronizing system between a Radio Frequency (RF) transmitter and a battery powered RF receiver wherein:

the transmitter includes means for transmitting (FIG. 3, antenna 80) first periodic sync signals which are received and used by the receiver to maintain proper synchronization of the receiver with the transmitter during second periodic wake up windows for possible transmissions of data (column 2, lines 15-18; column 22, lines 60-63; and column 16, lines 56-60);

the transmitter includes means for transmitting data (FIG. 3, antenna 80) during at least some of the second periodic wake up windows for the transmission of data (column 16, lines 45-47, and abstract);

the receiver includes means for waking periodically (FIG. 6, block 314) to receive the first periodic sync signals which are used by the receiver to maintain the receiver properly synchronized with the transmitter during the second periodic wake up windows for possible transmissions of data from the transmitter (column 16, lines 45-61);

the receiver, includes means for waking periodically (FIG. 6, block 314) for a short duration at the start of each second periodic wake up window to receive a possible transmission of data (column 16, lines 45-47), and if no transmission is received goes

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back to sleep, and if a transmission is received stays awake to receive the full transmission of data (column 17, lines 38-47 – inherently if no transmission is addressed to the terminal, it goes back to sleep), such that the average current consumed by the battery powered receiver to wake periodically to receive the first periodic sync signals to maintain synchronization and to wake periodically to listen for the possible second periodic transmissions of data is less than the average current required to maintain the receiver awake continuously (column 1, line 56-column 2, line 12 – inherently the average current consumed by the battery powered receiver to wake periodically to receive the first periodic sync signals to maintain synchronization and to wake periodically to listen for the possible second periodic transmissions of data is less than the average current required to maintain the receiver awake continuously).

Regarding claims 2 and 12, Haugli further teaches limitations of the claim in column 16, line 62-column 7, line 10.

Regarding claim 8 and 18, Haugli further teaches limitations of the claim in column 16, lines 45-56 (low cost oscillator inherently includes oscillator with higher than 20 ppm).

Regarding claim 9 and 19, Haugli further teaches limitations of the claim in column 5, lines 13-25.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 3-5,7,13-15,17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haugli in view of Gibbons et al. (U.S. Publication 2001/0053710; hereinafter "Gibbons").

Regarding claims 3, 13, 7 and 17, Haugli teaches all subject matter as claimed above except for the feature of the periodicity of the second periodic wake up windows is 3 seconds, such that the average response time of the battery powered receiver to changes reflected by the transmissions of data is less than 1.5 seconds on average and no greater than 3 seconds in the worst case. However, Gibbons teaches such limitations in column 6, paragraph [0065] (in combination, it is inherently understood that transmission of data is no greater than 3 seconds).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the use of the feature of the periodicity of the second periodic wake up windows is 3 seconds, such that the average response time of the battery powered receiver to changes reflected by the transmissions of data is less than 1.5 seconds on average and no greater than 3 seconds in the worst case, as

taught by Gibbons, in view of Haugli, in order to provide a reduced power operating mode for a wireless communication system.

Regarding claims 4 and 14, Haugli further teaches limitations of the claim in column 16, lines 45-56 (low cost oscillator inherently includes oscillator with higher than 20 ppm).

Regarding claims 5 and 15, Haugli further teaches limitations of the claim in column 5, lines 13-25.

7. Claims 6, 10 16, and 20 are rejected under 35 U.S.C. 103(a) as being obvious over Haugly in view of Gibbon, as applied to claims 1-5 above and further in view of Lewiner et al. (U.S. Patent #: 6,799,031; hereinafter "Lewiner").

Regarding claims 6, 10, 16 and 20, Haugly teaches all subject matter as claimed above except for the feature of operated in a security alarm system having an AC powered control panel with the transmitter which transmits periodic RF messages on the present status of the security alarm system to a plurality of battery powered reduced display monitors, each having a said battery powered receiver, to provide a display of the current status of the security alarm system. However, Lewiner teaches such limitations in FIG. 1, FIG. 2 (detector is powered by battery 31), column 5, lines 26-46 (control panel in center 20 is inherently AC powered).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the use of the feature of operated in a security alarm system having an AC powered control panel with the transmitter which transmits periodic RF messages on the present status of the security alarm system to a

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plurality of battery powered reduced display monitors, each having a said battery powered receiver, to provide a display of the current status of the security alarm system, as taught by Lewiner, in view of Haugly, in order to provide a method for extending battery life for wireless detectors.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thai N. Vu whose telephone number is 571-272-7928. The examiner can normally be reached on 9:00AM-7:00PM, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester Kincaid can be reached on 571-272-7922. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Thai N. Vu
Examiner
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ELISEO RAMOS-FELICIANO
PATENT EXAMINER